

ZB/05/0424



香港特別行政區政府知識產權署專利註冊處
Patents Registry, Intellectual Property Department
The Government of the Hong Kong Special Administrative Region

知識產權署
Intellectual Property Department

REC'D 09 MAR 2005	
WIPO	PCT

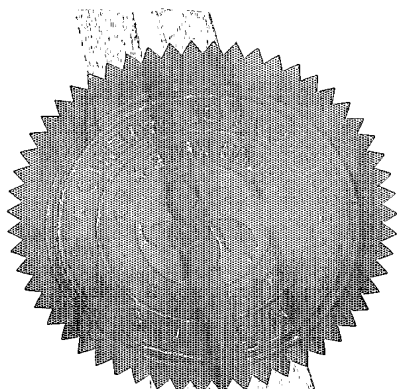
PATENTS ORDINANCE

Chapter 514

Laws of the Hong Kong Special Administrative Region

The attached is a true copy of the Short-term Patent Application No. 04103444.2, ✓
which was deemed to be withdrawn on 22 July 2004. The accorded filing date is
14 May 2004. ✓

Dated this 22nd day of February 2005.



(YIP CHIU YING RITA)
Intellectual Property Examiner
for Registrar of Patents

**PRIORITY
DOCUMENT**

SUBMITTED OR TRANSMITTED IN
COMPLIANCE WITH RULE 17.1(a) OR (b)



香港特別行政區政府
知識產權署
Intellectual Property Department
The Government of the Hong Kong
Special Administrative Region

RECEIVED

2011 MAY 14 PM 4:44

For Official Use

04103444.2

Patents Form P6

專利及外觀設計註冊處
PATENTS & DESIGN REGISTRIES

Request for grant of a short-term patent

Patents Ordinance (Cap. 514)

Patents (General) Rules (Cap. 514C)

General notes

- Either Chinese or English can be used as the language of proceedings. Please complete this form in English unless otherwise stated.
- This form must be signed and dated.
- If there is not enough space for any part on this form, please continue on an additional sheet. Number each additional sheet and state the number of additional sheets in Part 11(a).
- Please enquire through the following means:
 - E-mail: enquiry@ipd.gov.hk
 - Internet homepage address: www.info.gov.hk/ipd

Submission of application/request

In person or by mail with the appropriate fee to the Registrar of Patents, 24/F, Wu Chung House, No. 213 Queen's Road East, Wanchai, Hong Kong, China.

Use of personal data

Personal data provided in this form will be used by the Intellectual Property Department and can be disclosed for purposes relating to the administration of the Patents Ordinance and its subsidiary legislation. Registration will protect your intellectual property rights and information in this form is used to process your application. You can obtain information regarding access to and alteration of your personal data in accordance with the Patents Ordinance and its subsidiary legislation by contacting the Registrar of Patents.

01 Your reference	9874448:P/D:HALE
02 Details of applicant (If the name of the applicant is not in Roman letters or in Chinese, please include a transliteration in Roman letters.)	
Name	
Chan Wing Kin	
Name in Chinese (if applicable)	
陳永堅	
Address	
Block A-C, 4/F., Wing Hin Factory Building 31-33 Ng Fong Street San Po Kong Kowloon Hong Kong SAR China	

Note 1 You must state the title of the invention in both English and Chinese.

<p>03 Title of invention (Note 1)</p> <p>English</p> <p>Chinese</p>	<p>Hair Care Apparatus</p>
<p>04 Use of micro-organisms</p> <p>(a) Does the invention require the use of a micro-organism for its performance?</p> <p>(b) If you have marked "Yes", please indicate whether the micro-organism is available to the public at the date of filing of the application; and whether the micro-organism is described in the application or the specification of the patent in such a manner as to enable the invention to be performed by a person skilled in the art.</p> <p>(c) If you have marked "No" in both boxes in (b), please give the following details:</p> <p>Name and address of the depositary institution where a culture of the micro-organism is deposited</p> <p>Date of deposit (DD-MM-YYYY)</p> <p>Accession no. of the deposit</p> <p>(section 73 and Schedule 1, Patents (General) Rules, which can be viewed at www.info.gov.hk/ipd)</p>	<p>Please mark the appropriate box</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <hr/> <p>Name</p> <p>Address</p> <hr/>

05 Details of international application If the short-term patent application is based on . (a) International application no. (b) International filing date (DD-MM-YYYY) (c) International publication no. (d) International publication date (DD-MM-YYYY) (e) Date of entry into the national phase in the People's Republic of China or Date of issuance of the National Application Notification by the State Intellectual Property Office, People's Republic of China (f) Application no. of the Chinese patent application (<i>if known</i>) (section 125, Patents Ordinance and section 78, Patents (General) Rules, which can be viewed at www.info.gov.hk/ipd)	
	Please mark the appropriate box and enter the date in the space provided <input type="checkbox"/> (DD-MM-YYYY) <input type="checkbox"/> (DD-MM-YYYY)

Note 2 A claim of earlier application date may be made under:
 (a) section 116, Patents Ordinance for divisional application;
 (b) section 55, Patents Ordinance for new application filed on court order upon determination of right to patent after grant.
 The Patents Ordinance can be viewed at www.info.gov.hk/ipd.

06 Details of earlier application If the application is divided or derived from an earlier Hong Kong SAR application (<i>Note 2</i>) (a) Section under which an earlier application is claimed (b) Earlier application no. (c) Earlier application filing date (DD-MM-YYYY)	Please mark the appropriate box Patents Ordinance <input type="checkbox"/> Section 116 <input type="checkbox"/> Section 55

07 Details of priority application
 If a statement of claim of priority under section 111, Patents Ordinance is made, please provide a statement and details in the space below:
(sections 58(5)(c), 69, Patents (General) Rules, which can be viewed at www.info.gov.hk/ipd)

Statement

Country/Territory/Area	Priority application no.	Priority application filing date (DD-MM-YYYY)

Note 3 If the applicant is not the sole inventor or the applicants are not the joint inventors, a statement identifying the inventor(s) and indicating the derivation of the applicant's entitlement to exercise his right to the short-term patent shall be made on Form P6A (section 113(2)(c), Patents Ordinance and section 65, Patents (General) Rules, which can be viewed at www.info.gov.hk/ipd).

08 Details of inventor *(If the name of the inventor is not in Roman letters or in Chinese, please include a transliteration in Roman letters.)*
(Note 3)

Name

Chan Wing Kin

Name in Chinese *(if applicable)*

陳永堅

Address

Block A-C, 4/F., Wing Hin Factory Building
 31-33 Ng Fong Street
 San Po Kong
 Kowloon
 Hong Kong SAR
 China

Note 4 Please refer to section 109, Patents Ordinance and sections 58(5)(e), 58(5)(f), 70, Patents (General) Rules for claim of non-prejudicial disclosure. The Patents Ordinance and Patents (General) Rules can be viewed at www.info.gov.hk/ipd.

09 Non-prejudicial disclosure

If the applicant is making a claim regarding non-prejudicial disclosure under section 109, Patents Ordinance, please provide a statement giving details relating to such disclosure.
(Note 4)

Statement

Name and place of the exhibition or meeting

Opening date of the exhibition or meeting
 (DD-MM-YYYY)

Date of first disclosure
 (DD-MM-YYYY)

<p>10 If a request for deferral of grant under section 119, Patents Ordinance is required, please mark the box and enter the period of such deferral. The Patents Ordinance can be viewed at www.info.gov.hk/ipd. (The period of deferral should not exceed 12 months.) (If the box is not marked, it will be taken that deferral of grant is not requested.)</p>	<p><input checked="" type="checkbox"/> Request for deferral of grant up to <u>14 May 2005</u> (DD-MM-YYYY)</p>
<p>11 Enter the no. of sheets for any of the following documents you are filing with this form</p>	<p>No. of sheets</p>
<p>(a) Additional sheet(s) attached to this form</p>	
<p>(b) Description</p>	<p>11</p>
<p>(c) Claim(s)</p>	<p>3</p>
<p>(d) Drawing(s)</p>	<p>5</p>
<p>(e) Abstract (in both English and Chinese)</p>	<p>1 (in English)</p>
<p>(f) Priority document(s)</p>	
<p>(g) Translation of the priority document(s)</p>	
<p>(h) Search report</p>	
<p>(i) Translation of the search report</p>	
<p>(j) In the case of an international application, copy of :</p>	
<p>(i) the international application as published by the International Bureau</p>	
<p>(ii) the international search report</p>	
<p>(iii) translation as published by the State Intellectual Property Office, People's Republic of China</p>	
<p>(iv) publication of information by the State Intellectual Property Office, People's Republic of China concerning the international application</p>	
<p>(k) Statement of inventorship on Form P6A in accordance with section 113(2)(c), Patents Ordinance and section 65, Patents (General) Rules</p>	
<p>(l) Others (please specify)</p>	

Note 5 An address for service in Hong Kong, China must be supplied.

12 Address for service in Hong Kong, China (Note 5)

Name

Deacons

Address

5th Floor
Alexandra House
16-20 Chater Road
Central
Hong Kong SAR
China

Telephone no.

2825 9336 (Hans Lee)

Facsimile no.

2810 0431

E-mail address

hans.lee@deacons.com.hk

Note 6 If you are an agent, an address in Hong Kong, China where you reside or carry on your business activities must be supplied.

13 Agent's address (Note 6)**14 Signature**

Signature

Paul Davies, Patent Attorney
Name and Official Capacity of Signatory14 May 2004
Date (DD-MM-YYYY)

HAIR CARE APPARATUS

FIELD OF THE INVENTION

The present invention relates to hair care means and apparatus. More particularly, this invention relates to hair styling means and apparatus such as hair curlers and hair straighteners. More specifically, although of course not solely limited thereto, this invention relates to hair styling apparatus with detachable styling heads.

BACKGROUND OF THE INVENTION

10 Hair care means and apparatus are widely used in many hair applications such as hair styling and hair treatment. Hair styling apparatus typically comprises hair curlers and hair straighteners. Conventional hair straighteners typically comprise a tong-type apparatus with a pair of pivotable arms formed with a pair of opposing heated styling heads. During hair straightening, the pair of heated styling hairs are pressed together and dragged along the length of the hair whereby the engaged hair is straightened by heat and tension.

Conventional hair curlers typically comprise a heated curling head and a pivotable clamping arm for clamping hair to be curled onto the heated curling head. During hair curling, the heated styling head is wrapped about the hair
20 whereby hair is curled by heat and tension.

For maximal thermal efficiency for optimal hair styling, the styling heads of the styling apparatus are preferably directly heated with built-in heating means

disposed proximal to the styling heads. However, this also means that each styling apparatus is typically suitable for a single styling application or purpose only.

OBJECT OF THE INVENTION

5 Accordingly, it is an object of this invention to provide hair styling apparatus with styling heads having built-in heating means while allowing a plurality of styling applications. At a minimum, it is an object of this invention to provide the public with a useful choice of a hair care apparatus.

SUMMARY OF THE INVENTION

10 According to a first aspect of the invention, there is provided a hair styling apparatus comprising a pair of pivotally connected handles and a pair of elongated styling members which are respectively connected to the un-pivoted ends of said handles, each said elongated styling member comprising a salient styling surface which is rotatable about a longitudinal axis, said longitudinal axis
15 being substantially orthogonal to the pivotal axis joining said handles, said handles being pivotally movable between a hair clamping position at which position said styling members being in compressive contact and a releasing position at which position said styling members being separated, the salient styling surfaces of said styling members being complementary so that, when said handles being held
20 together in said hair clamping position during hair styling application, the salient surfaces of said styling members being in complementary engagement such that hair is clamped between said styling members and will be styled by said

complementary salient surfaces of said styling members when said salient members are moved along said hair.

According to a second aspect of the invention, there is provided a hair styling apparatus comprising a pair of pivotally connected handles and a pair of elongated styling members which are respectively connected to the un-pivoted ends of said handles, said elongated styling member being detachable and including heating means, said styling member being rotatable about said handle and about a longitudinal axis which is substantially orthogonal to the pivotal axis joining said handles, said elongated styling member and said handle including co-operatives electrical interfacing means such that power for operating said heating means of said styling member being supplied from said handle to said styling member via said electrical interfacing means.

According to a preferred embodiment of the present invention, said styling member comprising a substantially cylindrical barrel with said salient surface forming on the outside of said barrel, said salient surface being substantially symmetrical about said longitudinal axis about which said styling being rotatable.

Preferably, at least one of said barrel being freely rotatable.

Preferably, said salient surface comprising a plurality of protrusions, said plurality of protrusions extending radially away from said longitudinal axis and being substantially evenly distributed.

Preferably, the distribution of said protrusions of said styling members being substantially identical.

Preferably, said plurality of protrusions being substantially distributed evenly about a plane which is substantially orthogonal to said longitudinal axis.

Preferably, said styling members comprising electrical means and electrical being detachably attachable to said handles, said handle comprising a
5 rotatable electrical adaptor with electrical contacts making detachable electrical connection with the heating means of said styling members for supplying electrical power to said heating means, said rotatable electrical adaptor being rotatable relative to said handle while maintaining electrical contact with a power supply connected to said handle.

10 Preferably, said co-operative electrical interfacing means comprising rotary-type electrical contacts.

Preferably, said rotary-type electrical contact comprising a pair of electrode and conductive ring which are relatively rotatable connected and which are separately disposed on said elongated styling member and said handle.

15 BRIEF DESCRIPTION OF THE DRAWINGS

Preferred embodiments of the present invention will be explained in further detail below by way of examples and with reference to the accompanying drawings, in which:-

Fig. 1 is a schematic side view showing a hair straightener with a pair of
20 straightening heads disassembled illustrating a first preferred embodiment of the present invention,

Fig. 2 is a longitudinal cross-sectional view showing the internal structure of the hair straightener of Fig. 1 with the styling heads assembled,

Fig. 2A is an enlarged view of the encircled portion of Fig. 2,

Figs. 2B to 2E show the transversal cross-sections along the sectional
5 lines B-B, C-C, D-D and E-E,

Fig. 3 illustrates the hair straightener of Fig. 2 in the "opened" configuration,

Fig. 4 shows a schematic side view showing a hair curler of a second preferred embodiment of this invention with the curling heads detached, and

10 Fig. 4A is a transversal cross-section showing the cross-sections of the curling heads in co-operative and complementary engagements,

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring firstly to Figs. 1 to 3, there is shown a hair straightener 1 illustrating a first preferred embodiment of the present invention. The hair
15 straightener comprises a pair of pivotally connected handles 10 and a pair of elongated styling members which are respectively connected to the un-pivoted ends of the handles. The pair of elongated styling members comprises a pair of straightening heads 20. Each straightening head 20 comprises an elongated barrel with a substantially cylindrical and smooth hair straightening surface.
20 Heating means, for example, resistive heating coils 21, infrared or PTC heaters, are distributed underneath the cylindrical straightening surface 22 and substantially along the effective length of the straightening head. An attachment

means is formed on the straightening head for connection with the handle portion. The attachment means comprises a pair of protruding connectors **23** extending from an axial end of the substantially cylindrical straightening head and towards the handles **10**. In addition to forming mechanical connection with the handle portion, the attachment means also provides electrical connection between the heating means and the corresponding power source connected to the handle portions. Specifically, the attachment means comprises a pair of axially extending rigid conductive electrodes for insertion into a socket formed on the handle portion for making electrical connection. The hair straightening surface is preferably thermally conductive for optimal heat transfer from the heating means to the hair. The cylindrical hair straightening surface is typically made of stainless steel or other appropriate thermally conductive materials.

The handle portion **10** comprises a pair of pivotally connected arms **11** or handles which can be movable between the "fully-opened" and the "fully-closed" positions. In the fully-closed position, when connected with the styling hair, hair will be engaged between the cylindrical hair straightening surfaces of the pair of straightening heads. During the fully-opened position, the cylindrical hair straightening surfaces of the straightening heads will be moved away from each other so that hair between the pair of straightening heads will not be subject to compressive force by the straightening heads.

The pair of pivotally connected handles is joined together under spring bias so that the pair of pivotal arms will be urged towards the fully-opened position when no closing tension is applied to them. A pair of axially extending shafts **12** protrudes from the free, un-pivoted end of the handles. The axially extending

shafts reinforce the compressional strength and enhance the rotational stability of the rotating heads. An electrical lead **13** for connecting mains power supply to the hair straightener is connected to the hinged end of the pivotal arms. Each of the pivotal arms comprises a hollow housing so that electrical wiring for supplying power to the heating means can transit from the electrical lead to the un-pivoted free ends of the handle portion. An electrical switch **14** for controlling the power supply to the heating means is connected in series with the heating means and the electrical lead so that a user may turn on or off power supply to the heating means or change the heating power level.

Electrical connection between the handle portion and the straightening head is via a rotary-type electrical connection. The rotary-type connection comprises a pair of axially extending electrodes **23** which are detachably connected to an insulated collar **15**. The insulated collar **15** is rotatably mounted about the shaft **12** and comprises a pair of electrode receiving sockets **17**. The electrode-receiving socket comprises an axially extending trough with a conductive seat for making detachable electrical coupling with the electrode. The sockets **17** for making rotary-type connection with the electrodes of the rotatable straightening heads are disposed on the handles and proximal to the free, un-pivoted, ends of the handle portion.

The conductive seat comprises a bulb-shaped conductive brace with a resiliently and radially expandable front aperture for detachable and compressing holding of the electrode. The depth and width of the seats and troughs are adapted so that the electrodes can be seated securely and comfortably with good electrical connection when mounted onto the handle. A pair of axially displaced

circumferential conductive rings are attached to the insulated collar **15**. The pair of axially displaced conductive rings **171** are respectively connected to the live and neutral wires via a respective pair of conductive spring plates **172** which extend from the main housing towards the shaft **12** so that the conductive rings
5 are electrically connected to the mains power supply during rotation. The conductive seats and rings may be made of copper, graphite, stainless steel or other appropriate conductive materials.

Although the electrodes and the troughs are symmetrically disposed about the shaft axis in the present embodiment, it will be appreciated that they can be
10 non-symmetrically disposed without loss of generality.

Mechanical fastening means are provided respectively on the styling heads and the handles to hold the styling heads during use. An example of such mechanical fastening means is a "lock-ring" type connector **18** disposed at the approaching ends of the styling heads and the handles. In addition, a spring clip
15 **19** is provided at the front end of the styling head for resilient and compressive retention of the styling head on the shaft.

As can be seen in Fig. 2, when the straightening heads are attached to the handle portion with the pair of electrodes fastened onto the semi-circular seats formed on the circumferential groove, the heating elements will obtain operating
20 electrical power from the pair of electrodes while the straightening head is rotatable relative to the handle portion.

Turning now to the operation of the hair straightener, when hair straightening is required, strains of hair are placed in the space between the

straightening heads of Fig. 3. The pivotal arms are then pressed towards each other so that the pair of straightening heads will be moved towards each other, whereby hair is compressively engaged. The pair of straightening heads is then moved along the hair length of the strains of hair by, for example, sliding the
5 straightener downwards towards the free ends of the hair. The friction between the hair and the cylindrical straightening heads will cause relative rotation of the straightening heads with respect to the hair. The heat at the surface of the flat cylindrical hair straightening surface of the straightening hair will cause straightening of hair while the straightening heads are rolling along the hair. As
10 the rotatable heads are pressing against the strains of hair while moving along the hair, the hair can be straightened with less tension required. Furthermore, straightening heads of various longitudinal and transversal dimensions can be utilized since the rotational straightening heads can be detachable from the handle portion.

15 Referring to Figs. 4 and 4A, there is shown a hair curler **2** illustrating a second preferred embodiment of the present invention. The hair curler comprises a pair of pivotally connected handles **11** and a pair of elongated styling members **30** which are for detachable connection to the un-pivoted ends of the handles. In this preferred embodiment, the styling members comprise a pair of curling heads.
20 Each curling head comprises an elongated and cylindrical barrel with a salient hair curling surface **32**. As shown in Fig. 4A, the salient surface on the curling head of the present preferred embodiment comprises a plurality of circumferentially disposed and radially protruding curling teeth **33** which taper away from the longitudinal axis of the curling head. The curling teeth on the pair of curling heads
25 are substantially complementary so that the protruding teeth of one curling head

will be received substantially within the trough **34** between adjacent teeth on the corresponding curling head.

Similar to the hair straightener, the curling heads are inserted axially along the protruding shafts of the handle until the electrodes, which are also axially
5 extending electrically pins, are seated within the concentric and circular conductive grooves and in close electrical contact therewith. At that instant, the curling head will be fastened onto the handle by, for example, a lock-ring like fastening means. For optimal thermal transfer, the salient surface, including the protruding teeth, is formed of thermally conductive materials such as stainless
10 steel. During use, hair is clamped between the curling heads and engaged between the curling teeth with the salient curling surfaces in complementary engagement. The hair curler is then slid along the engaged strains of hair and the heated salient members of the curling heads will then press and curl the engaged hair strains. Similarly, as the curling heads are rotatable relative to the
15 handle, hair can be curled with less tension. It will be appreciated that the dimensions of the salient teeth members **33** can be varied according to the degree of curl required by a user. This could be accomplished by, for example, providing a plurality of hair curling heads with corresponding and complementary salient curling surfaces. As an alternative, heated conductive spurs can be dispersed on
20 the cylindrical surfaces of the curling head to achieve hair curling.

While the present invention has been explained by reference to the examples or preferred embodiments described above, it will be appreciated that those are examples to assist understanding of the present invention and are not meant to be restrictive. The scope of this invention should be determined and/or

inferred from the preferred embodiments described above and with reference to the Figures where appropriate or when the context requires. In particular, variations or modifications which are obvious or trivial to persons skilled in the art, as well as improvements made thereon, should be considered as falling within the scope and boundary of the present invention. For the sake of brevity, same reference numerals are used for parts with identical or substantially identical functions or features in the Figures.

Furthermore, while the present invention has been explained by reference to hair straightener and hair curlers, it should be appreciated that the invention can apply, whether with or without modification, to other hair care apparatus without loss of generality.

CLAIMS

1. Hair styling apparatus comprising a pair of pivotally connected handles and a pair of elongated styling members which are respectively connected to the un-pivoted ends of said handles, each said elongated styling member comprising a salient styling surface which is rotatable about a longitudinal axis, said longitudinal axis being substantially orthogonal to the pivotal axis joining said handles, said handles being pivotally movable between a hair clamping position at which position said styling members being in compressive contact and a releasing position at which position said styling members being separated, the salient styling surfaces of said styling members being complementary so that, when said handles being held together in said hair clamping position during hair styling application, the salient surfaces of said styling members being in complementary engagement such that hair is clamped between said styling members and will be styled by said complementary salient surfaces of said styling members when said salient members are moved along said hair.
2. Hair styling apparatus according to claim 1, wherein said styling member comprising a substantially cylindrical barrel with said salient surface forming on the outside of said barrel, said salient surface being substantially symmetrical about said longitudinal axis about which said styling being rotatable.
3. Hair styling apparatus to claim 2, wherein at least one of said barrel being freely rotatable.

4. Hair styling apparatus according to claim 3, wherein said salient surface comprising a plurality of protrusions, said plurality of protrusions extending radially away from said longitudinal axis and being substantially evenly distributed.
- 5 5. Hair styling apparatus according to claim 4, wherein the distribution of said protrusions of said styling members being substantially identical.
6. Hair styling apparatus according to claim 4, wherein said plurality of protrusions being substantially distributed evenly about a plane which is substantially orthogonal to said longitudinal axis.
- 10 7. Hair styling apparatus according to claim 4, wherein said styling members comprising electrical means and electrical being detachably attachable to said handles, said handle comprising a rotatable electrical adaptor with electrical contacts making detachable electrical connection with the heating means of said styling members for supplying electrical power to said heating means, said rotatable electrical adaptor being rotatable relative to said handle while maintaining electrical contact with a power supply connected to said handle.
- 15
8. Hair styling apparatus comprising a pair of pivotally connected handles and a pair of elongated styling members which are respectively connected to the un-pivoted ends of said handles, said elongated styling member being detachable and including heating means, said styling member being rotatable about said handle and about a longitudinal axis which is substantially orthogonal to the pivotal axis joining said handles, said
- 20

elongated styling member and said handle including co-operatives electrical interfacing means such that power for operating said heating means of said styling member being supplied from said handle to said styling member via said electrical interfacing means.

- 5 9. Hair styling apparatus according to claim 8, wherein said co-operative electrical interfacing means comprising rotary-type electrical contacts.
10. Hair styling apparatus according to claim 9, wherein said rotary-type electrical contact comprising a pair of electrode and conductive ring which are relatively rotatable connected and which are separately disposed on said
- 10 elongated styling member and said handle.

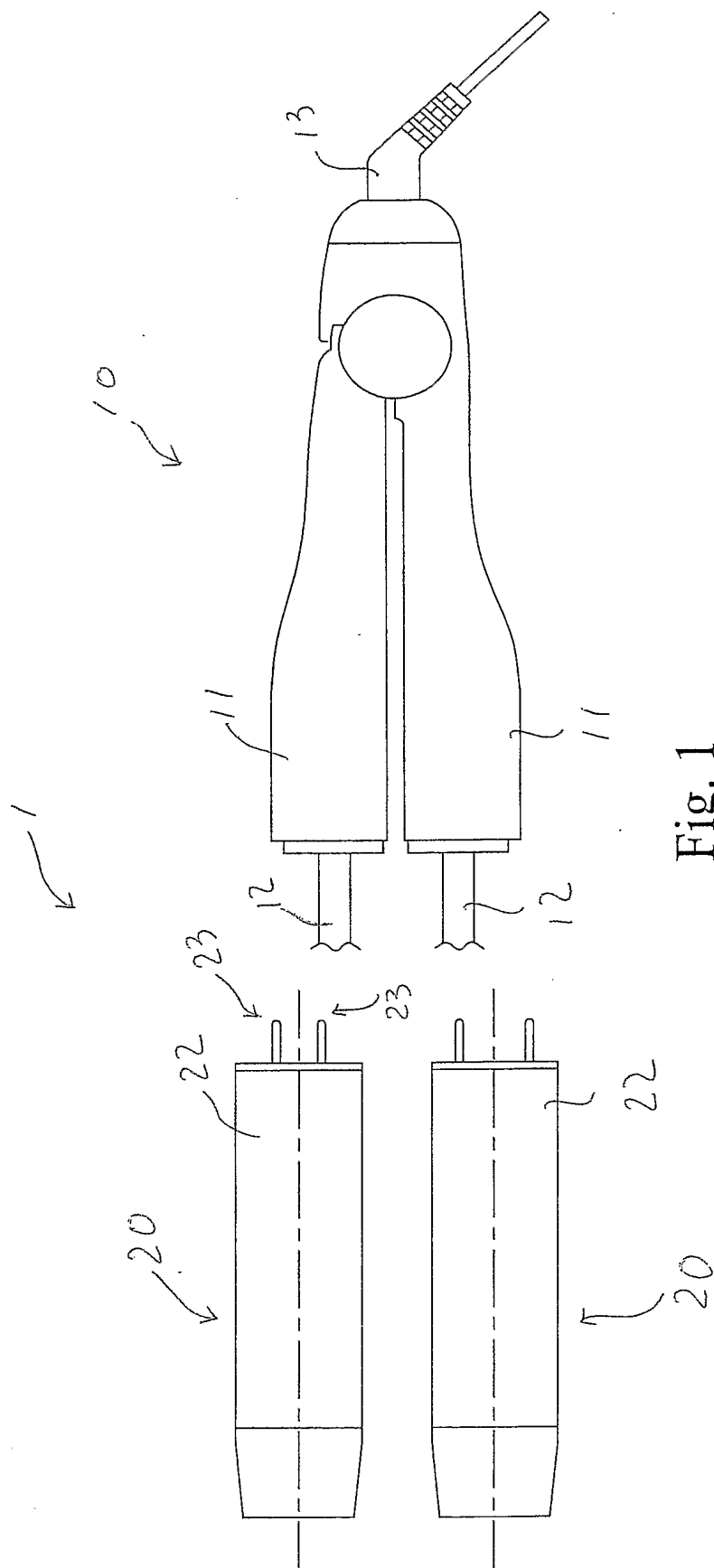


Fig. 1

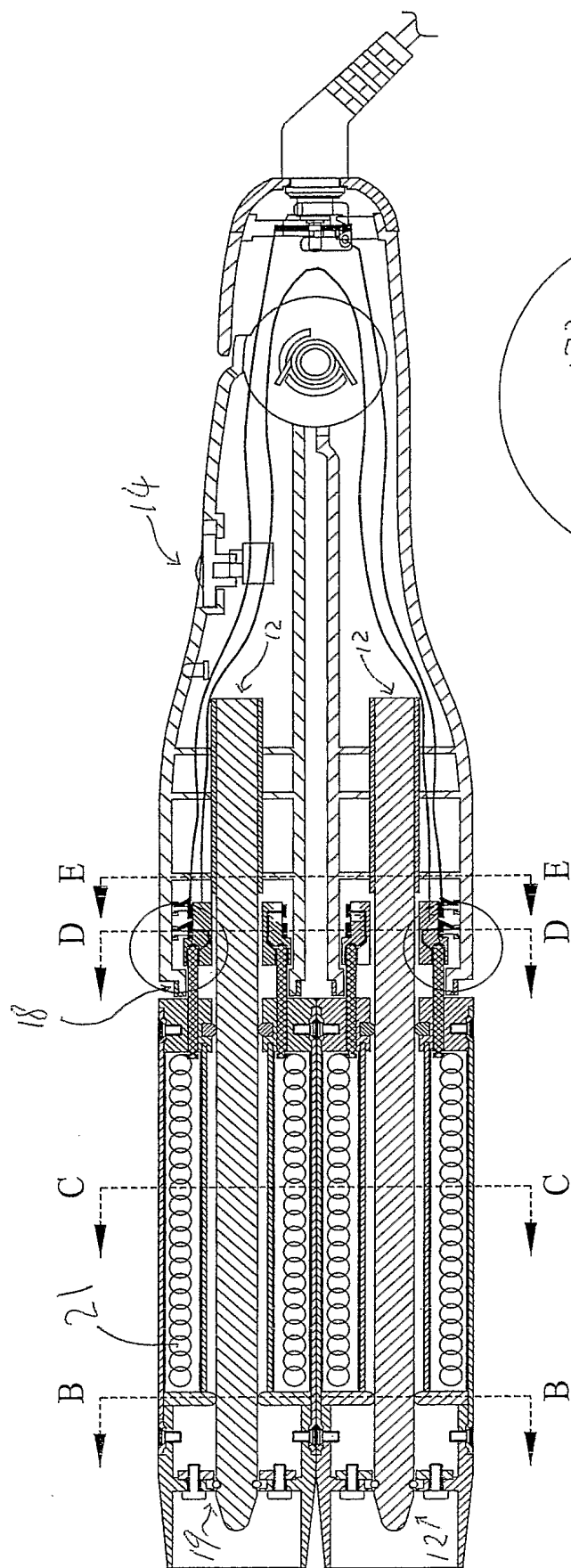


Fig. 2

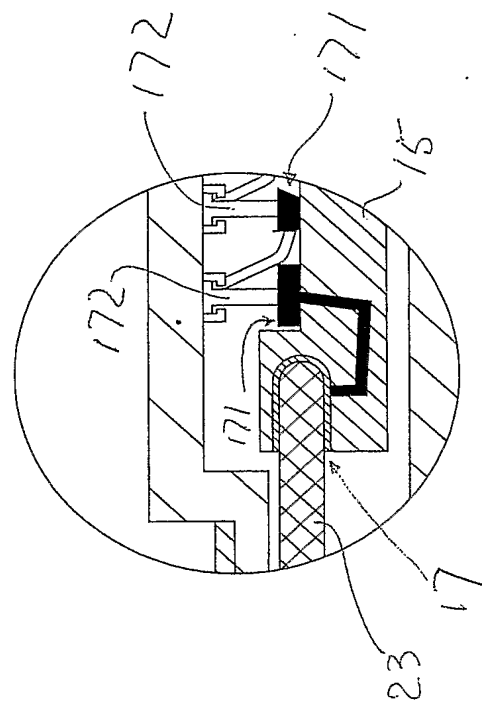
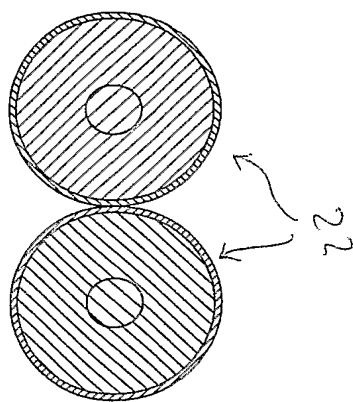
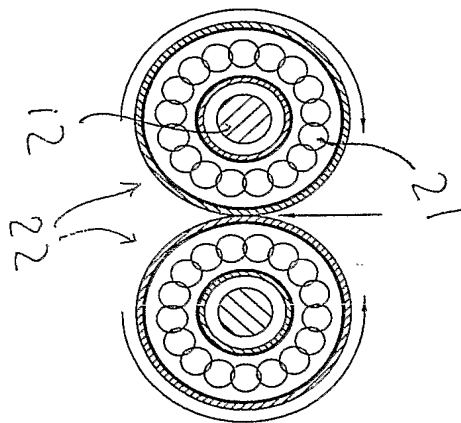


Fig. 2A



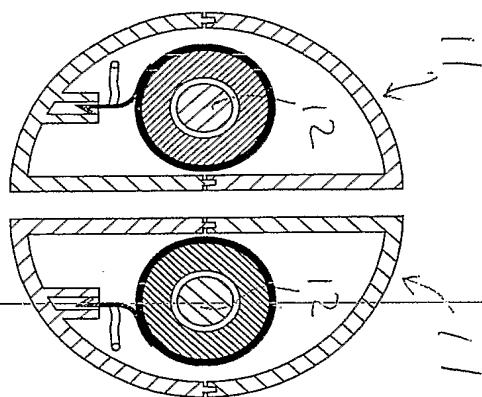
SECTION B-B

Fig. 2B



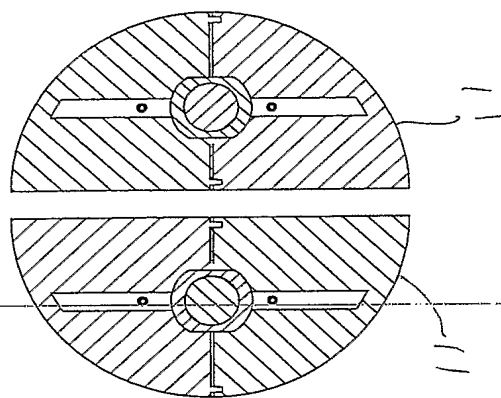
SECTION C-C

Fig. 2C



SECTION D-D

Fig. 2D



SECTION E-E

Fig. 2E

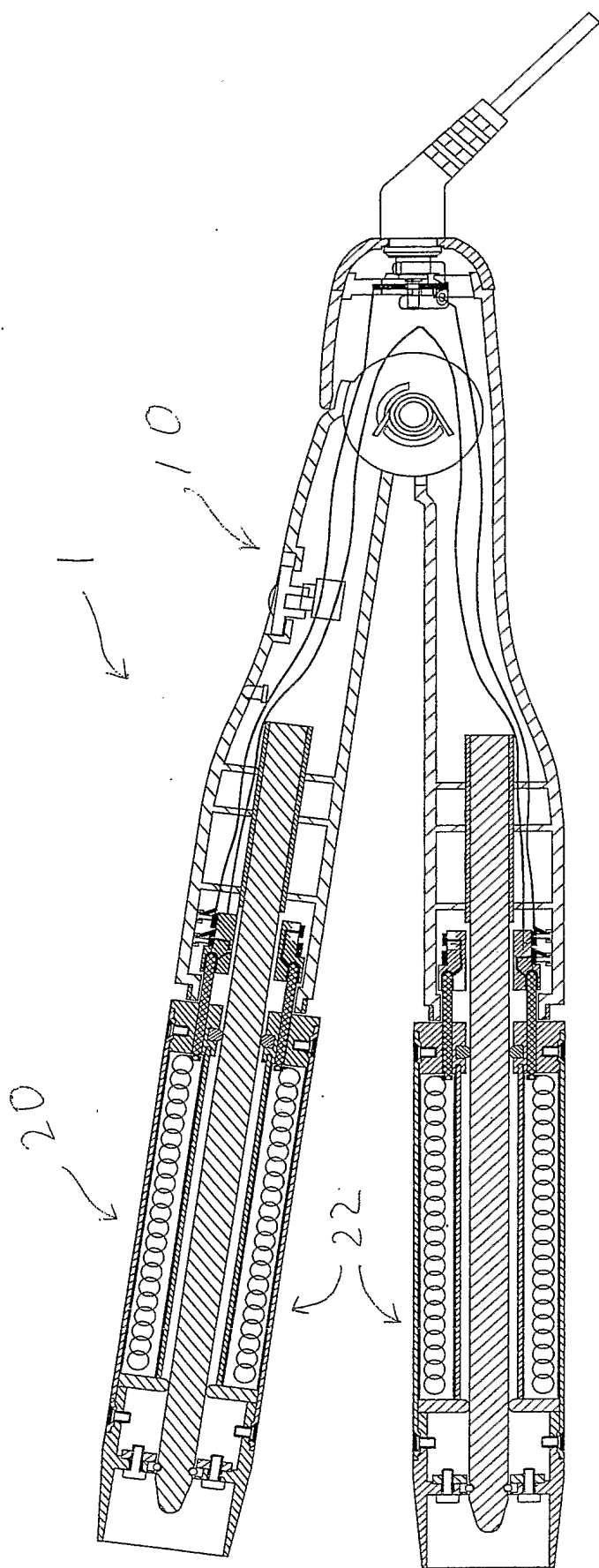


Fig. 3

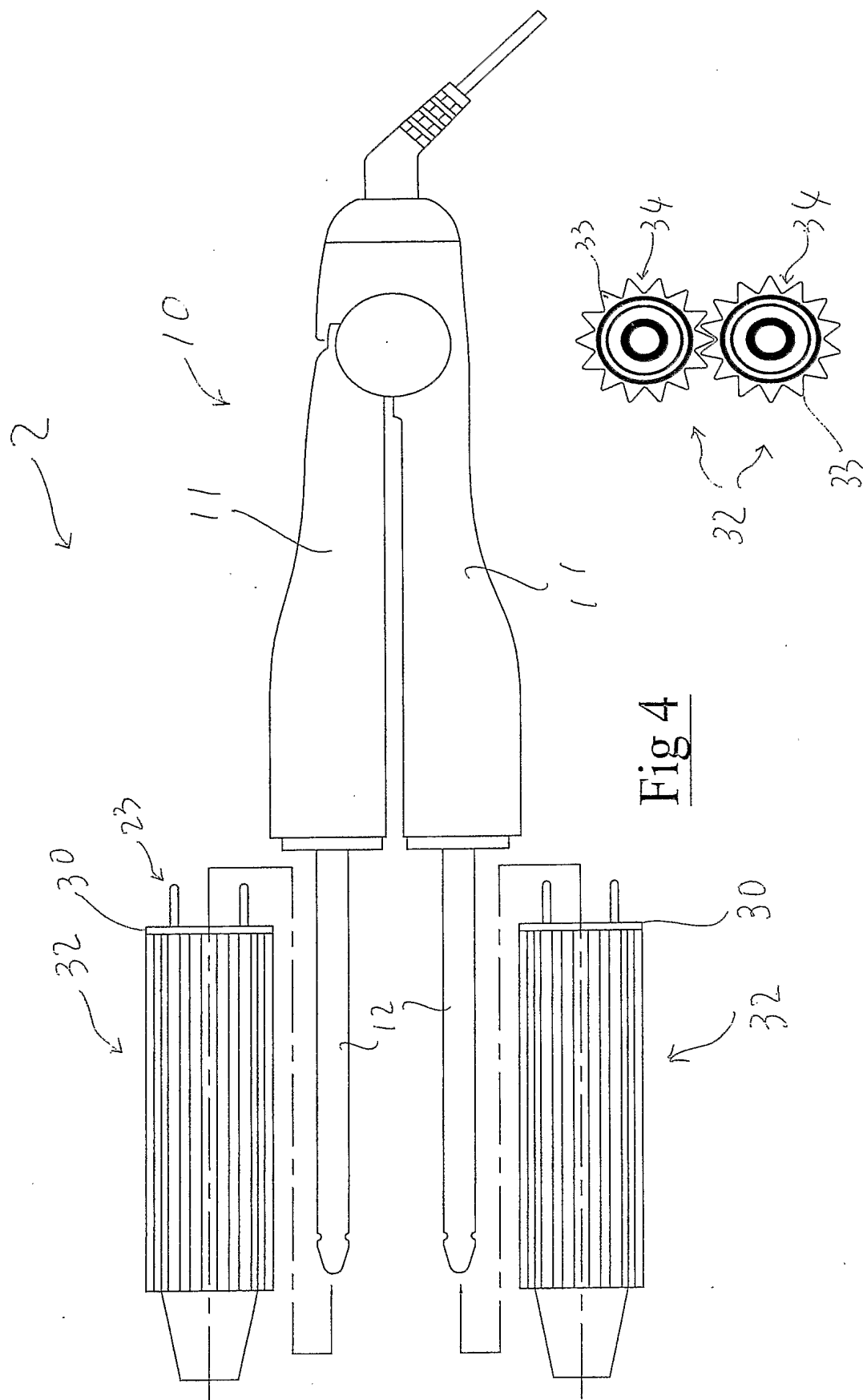


Fig 4

Fig 4A

HAIR CARE APPARATUS

ABSTRACT

- 5 Hair styling apparatus comprising a pair of pivotally connected handles and a pair of elongated styling members which are respectively connected to the un-pivoted ends of the handles, each elongated styling member comprising a salient styling surface which is rotatable about a longitudinal axis, the longitudinal axis being substantially orthogonal to the pivotal axis joining the handles, the handles being
- 10 pivotally movable between a hair clamping position at which position the styling members being in compressive contact and a releasing position at which position the styling members being separated, the salient styling surfaces of the styling members being complementary so that, when the handles being held together in the hair clamping position during hair styling application, the salient surfaces of
- 15 the styling members being in complementary engagement such that hair is clamped between the styling members and will be styled by the complementary salient surfaces of the styling members when the salient members are moved along the hair.